

DEPARTMENT OF MECHANICAL ENGINEERING

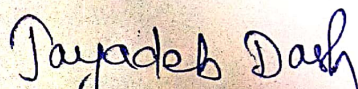
LESSON PLAN

Discipline: MECHANICAL	Semester: 3rd	Name of the Teaching faculty: Jayadeb dash
Subject: ENVIRONMENTAL STUDIES	No of Days/Week class allotted: 4	Semester from Date: 01/07/2024 To Date: 08/11/2024 No of weeks: 15
Week	Class Day	Topics
1st	1	Explaining Multidisciplinary nature of environmental studies:
	2	Discussing The Multidisciplinary nature of environmental studies:
	3rd	Discussing Forest resources: Use and over-exploitation, deforestation, case studies.
	4th	Discussing Timber extraction mining, dams and their effects on forests and tribal people.
2nd	1st	Explaining Water resources.
	2nd	Discussing Mineral Resources: Use and exploitation.
	3rd	Defining Environmental effects of extracting and using mineral resources.
	4th	Defining Food Resources: World food problems, changes caused by agriculture
3rd	1st	Discussing Effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity.
	2nd	Explaining Energy Resources: Growing energy need, renewable and non-renewable energy sources.
	3rd	Discussing use of alternate energy sources, case studies.
	4th	Discussing Land Resources: Land as a resource, land degradation, man induces landslides
4th	1st	Defining Soil erosion, and desertification.
	2nd	Explaining Role of individual in conservation of natural resources
	3rd	Explaining Equitable use of resources for sustainable life styles.
	4th	Explaining Concept of an eco system.
5th	1st	Defining Structure and function of an eco system.
	2nd	Explaining Producers, consumers, decomposers.
	3rd	Explaining Energy flow in the eco systems.
	4th	Explaining Ecological succession.
6th	1st	Explaining Food chains, food webs
	2nd	Explaining Ecological pyramids.
	3rd	Discussing Forest ecosystem.
	4th	CLASS TEST 1, Previous year questions, quiz test
7th	1st	Explaining Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).
	2nd	Introduction-Definition: genetics, species and ecosystem diversity.
	3rd	Explaining Biogeographically classification of India.
	4th	Explaining Value of biodiversity: consumptive use, productive use,
8th	1st	Discussing social ethical, aesthetic and option values.
	2nd	Explaining Biodiversity at global national and local level.
	3rd	Discussing Threats to biodiversity: Habitats loss.
	4th	Explaining Poaching of wild life, man wildlife conflicts.
	1st	Definition Causes, effects and control measures of: Air pollution

9th	2nd	Definition Causes, effects and control measures of: Water pollution.
	3rd	Definition Causes, effects and control measures of: Soil pollution
	4th	Definition Causes, effects and control measures of: Marine pollution
10th	1st	Definition Causes, effects and control measures of: Noise pollution.
	2nd	Definition Causes, effects and control measures of: Thermal pollution
	3rd	Definition Causes, effects and control measures of: Nuclear hazards.
11th	4th	Discussing Solid waste Management: Causes, effects and control measures of urban
	1st	Discussing Solid waste Management: industrial wastes.
	2nd	Explaining Role of an individual in prevention of pollution.
	3rd	Disaster management: Floods, earth quake, cyclone and landslides.
12th	4th	Explaining Form unsustainable to sustainable development.
	1st	Discussing Urban problems related to energy.
	2nd	Explaining Water conservation, rain water harvesting, water shed management.
	3rd	Discussing Resettlement and rehabilitation of people; its problems and concern.
13th	4th	CLASS TEST 2, Previous year questions, quiz
	1st	Discussing Environmental ethics: issue and possible solutions.
	2nd	Discussing Climate change, global warming, acid rain.
	3rd	Explaining Ozone layer depletion, nuclear accidents and holocaust, case studies.
14th	4th	Explaining Air (prevention and control of pollution) Act.
	1st	Explaining Water (prevention and control of pollution) Act.
	2nd	Explaining Public awareness.
	3rd	Explaining Population growth and variation among nations.
15th	4th	Explaining Population explosion- family welfare program
	1st	Discussing Environment and human health. Human rights. Value education
	2nd	Explaining Role of information technology in environment and human health.
	3rd	previous year question discussion
4th	Previous year questions, quiz	

Learning Resources:

Sl.No	Title of the Book	Name of Authors
1	Textbook of Environmental studies	Erach Bharucha
2	Fundamental concepts in Environmental Studies	D.D. Mishra, S.Chand
3	Text book of Environmental Studies	K.Raghavan Nambiar
4	Environmental Engineering	V.M.Domkundwar, Dhanpat Rai & Co


 Signature of Faculty